

2007 NIST Summer Institute for Middle School Teachers

date/time location	Monday, July 23 Lecture Rm C	Tuesday, July 24 Lecture Rm C	Wednesday, July 25 Lecture Rm A	Thursday, July 26 NO SPACE RESERVED	Friday, July 27 Lecture Rm A
9-10	Introduction: Hratch-Overview of NIST (LRC, 9-9:45)	Mechanical Metrology -Question and reflection (101/B11, 9-9:15)		Thermometry -Question and reflection (221/A366, 9-9:15)	Genomics/DNA -Lecture by Mike Amos (9:00-9:30)
10-11	Mary-Who we are as a group -Goals of Institute -Discussion of needs of participants - Safety (9:45- 10:45)	-Metrics "Jeopardy" Elizabeth Gentry (9:15-10:15) -Weights and Measures Overview Georgia Harris -Activities Tina Butcher, Elizabeth Gentry and Michelle Foncannon (101/B11, 10:15- 11:30) -Q	Materials Science -Cement activity Clarissa Ferraris (226/B165, 9:15- 10:15) -pH of water Ken Pratt (LRA, 10:30-12N)	-Lecture by Greg Strouse (9:15-9:45) -Thermometer calibration Dawn Cross and Wyatt Miller (221/A242, 9:45- 10:45)	-Isolating spores from soil Jayne Morrow (227/A2xx, 9:45- 10:30) -Gel electrophoresis Margaret Kline (227/B225,10:45- 11:30)
11-12	Measurement Uncertainty How Big is Pi? Dennis Leber and Hung-Kung Liu (LRC, 11-12)			Optical Thermometry Tour Howard Yoon (220/A334, 11:15- 11:45)	Presentation by SURF student: Marcos Salgado- Crespo (LRA, 11:45- 12)
lunch	lunch	group lunch out (11:45-1)	lunch	lunch with Hratch - O'Donnells (12N-1:30)	lunch
1-2	NIST in Your Community Gail Porter (101 foyer, 1:15-1:45) Museum Tour Keith Martin (museum, 1:45- 2:15)	Experimental Design Jim Filliben (LRC, 1:15-3:45)	Forensics -Ink Identification with Thin Layer Chromotography (TLC) Bill MacCrehan (227/B163, 1-3)	Shadow thermometry and humidity scientists (1:30-3:30)	Funnel Experiment Data Analysis Jim Filliben (LRA, 1- 2PM)
2-3		-Reflection Time (LRC, 3:45-4)			Mike Epstein: Introducing students to the use of technology in science and the importance of critical thinking (LRA, 2:15-4)
3-4	Bill Phillips "Time, Einstein, and the Coldest Stuff in the Universe" (LRC, 2:30-4)		Reflection Time -- How does what I've learned fit in my curriculum? How is the Institute going so far? (LRA, 3-4)	3:30 Science of Trace Explosives/ Red Auditorium	

Monday, July 30 NCNR	Tuesday, July 31 Lecture Rm A	Wednesday, August Lecture Rm A	Thursday, August 2 Lecture Rm A	Friday, August 3 Bldg 227/A202
Use of neutrons in everyday life (NCNR) 9:00-9:30 Journal 9:30-10:00 BT1 - Whoever is starting on BT1 10:00- 10:30-Diffraction demonstrations 10:30-11:00- Making Neutrons and The Neutrons Mouse Trap 11:00-12:15- Grow crystals Dan Neumann, Juscilino Leao, Mathew Wade, Christopher Leao, and Alexander Leao	Atmospheric Science -Question and reflection (LRA, 9- 9:15) -Lecture by Karen Phinney (LRA 9:15- 9:45) -Solar system scale model activity Richard Steiner (LRA, 9:15-10:15) SURF student panel discussion (LRA, 10:30-12N)	Separations for Health Measurements -Question and reflection (LRA, 9- 9:15) -Lecture by Karen Phinney (LRA 9:15- 9:45) -Separations using Solid Phase Extraction (SPE) Kate Rimmer (LRA,10-11) Reflection Time (LRA, 11-12)	Atmospheric Science -Question and reflection (LRA, 9- 9:15) -Extreme Weather: floods, tornados, hurricanes, etc -Weather Forecasting 101 -Weather "Jeopardy" (LRA, 9:15-11:45)	Spectrometry -Question and reflection (227/A202, 9-9:15) -Hand-held spectrophotometer Steve Choquette (227/A202, 9:15- 10:15) -Lecture by Pam Chu (A202, 10:15-10:45) -Lab tours (Bldg 221/A06-14, 11- 11:30)
pizza lunch with SURF students (12:15-1:30)	lunch	lunch with MCPS SURF students (12-1)	lunch	group lunch out (11:30-1:00)
1:30-1:45 Finish Crystal Experiment - Dan Neumann and Juscilino Leao 1:45-3:00 Tour of C100 and G100 3:00-3:30 Return to BT1 to view data and see "final product" Dan Neumann and Juscilino Leao 3:30-4:00 Discussion between teachers about their experience at the NCNR and journal 4:00 Departure	Forensics Research at NIST Human ID Group: The Role of NIST in DNA Forensic Typing Tour Becky Hill (227/B261, 1:15- 1:45) Shadowing of forensics scientists (2:00-4:00)	Organic Metrology Group: Shadowing scientists and SURF students (227, 1- 2:30) -Div 839.04 Ice cream social (2:30- 3) -Presentations by SURF students (LRA, 3:15-4)	Climate Measurements and Standards Tour (Optical Technology Div) Jerry Fraser (221/?, 1:15-1:45) Shadowing of atmospheric science scientists (2:00- 4:00)	Pseudo-science in the movies Richard Steiner (227/A202, 1-3) Wrap-up: plans for return, Westat informal oral evaluation